

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (previously presented): A bone cement comprising in admixture a monomer-containing liquid portion and a particulate polymer portion, wherein at least one of said portions comprises a dissolved non-polymerizable organoiodine compound.
2. -3. (canceled).
4. (currently amended): TheA bone cement according to claim 1 having a chemically homogenized distribution of all components therein.
5. (previously presented): The bone cement as claimed in claim 4, wherein said cement comprises an X-ray contrast agent.
6. (previously presented): The bone cement as claimed in claim 1, wherein said cement additionally comprises an antibiotic compound.
7. (previously presented): The bone cement as claimed in claim 6, wherein said antibiotic compound is selected from the group consisting of gentamicin, colistin, erythromycin, clindamicin, penicillins, norfloxacin and chloramphenicol.
8. (previously presented): The bone cement as claimed in claim 6, wherein said antibiotic compound is present in the form of a lipophilic ester.
9. (currently amended): The bone cement as claimed in claim 1, wherein the concentration of the organoiodine compound within the particulate polymer ~~partiele~~-portion differs by less than 50% compared to the concentration of the organoiodine within ~~the~~a polymer which is prepared *in situ* from the monomer during use.

10. (currently amended): The bone cement as claimed in claim 6, wherein the concentration of the antibiotic compound within the particulate polymer ~~particle~~-portion differs by less than 50% compared to the concentration of the organoiodine within ~~the~~ a polymer prepared *in situ* from the monomer during use.

11. (currently amended): The bone cement as claimed in claim 10, wherein the concentration of the antibiotic compound within the particulate polymer ~~particles~~-portion differs by less than 10% compared to the concentration of the organoiodine within the polymer prepared *in situ* from the monomer during use.

12. (canceled).

13. (currently amended): The bone cement as claimed in claim 1, wherein the liquid portion additionally comprises at least one of hydroquinone, growth hormone, ~~BMP~~ bone morphogenic protein or vitamins.

14. (previously presented): The bone cement as claimed in claim 1, wherein said liquid portion is present in a range of from 25 to 45% wt of cement.

15. (currently amended): The bone cement as claimed in claim 1, wherein said polymer portion additionally comprises at least one of hydroquinone, growth hormone, bone morphogenic protein~~BMP~~ or vitamins.

16. (currently amended): The bone cement as claimed in claim 1, wherein polymer particles of said particulate polymer portion have a mode particle size of from 1 to 200  $\mu\text{m}$ .

17. (currently amended): The bone cement as claimed in claim 1, wherein polymer particles of said particulate polymer portions are polydisperse.

18. (withdrawn): A bone cement kit comprising a monomer-containing liquid portion and separate therefrom a particulate polymer portion, wherein at least one of said portions

comprises a dissolved non-polymerizable organoiodine compound, said kit optionally further comprises instructions for the preparation of a bone cement therewith.

19. (withdrawn): A bone cement kit comprising a monomer-containing liquid portion and separate therefrom a particulate polymer portion, wherein said liquid portion comprises a polymerizable organoiodine compound and said particulate polymer has a polymer structure comprising covalently bonded residues of a polymerizable organoiodine compound, said kit optionally further comprises instructions for the preparation of a bone cement therewith.

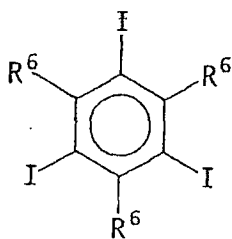
20. (withdrawn): A bone cement kit comprising a monomer-containing liquid portion and separate therefrom a particulate polymer portion, wherein said liquid portion comprises a polymerizable organoiodine compound and/or said particulate polymer has a polymer structure comprising covalently bonded residues of a polymerizable organoiodine compound, wherein said polymerizable organoiodine compound comprises an organoiodine moiety covalently bonded via an amide bond, but not an ester bond, to a polymerizable moiety.

21. (withdrawn): A bone cement kit providing a bone cement comprising a chemically homogeneous distribution of all components within the final bone cement.

22. (withdrawn): The bone cement kit as claimed in claim 21, wherein said cement comprises an X-ray contrast agent.

23. (withdrawn): The bone cement kit as claimed in claim 21, wherein said cement additionally comprises an antibiotic agent.

24. (withdrawn): An organoiodine compound of formula IV



(IV)

wherein each R<sup>6</sup> group which may be the same or different, is an acyloxyalkylcarbonylamino, N-(acyloxyalkyl carbonyl)acyloxyalkylamino, N-acyloxyalkylcarbonyl-N-alkyl-amino, acyloxyalkylaminocarbonyl, bis(acyloxyalkyl)aminocarbonyl, N-acyloxyalkyl-N-alkylaminocarbonyl, alkoxyalkylaminocarbonyl, N-alkylalkoxyalkylaminocarbonyl, bis(alkoxyalkyl)aminocarbonyl, alkoxyalkylcarbonylamino, N-alkylalkoxyalkylcarbonylamino or N-alkoxyalkylcarbonylalkoxyalkylamino group or a triiodophenyl group attached via a 1 to 10 atom bridge optionally substituted by an acyloxyalkyl, acyloxyalkylcarbonyl, acyloxyalkylamino, acyloxyalkylcarbonylamino, acyloxyalkylaminocarbonyl, alkoxyalkyl, alkoxyalkylcarbonyl, alkoxyalkylamino, alkoxyalkylcarbonylamino, or alkoxyalkylaminocarbonyl group or by a polymerizable group, or one or two R<sup>6</sup> groups is/are a polymerizable group, optionally attached via a 1 to 10 atom bridge; or where one R<sup>6</sup> group is a polymerizable group, and one or both of the remaining R<sup>6</sup> groups is an alkylamino, bisalkylamino, alkylcarbonylamino, N-alkyl-alkylcarbonylamino, alkylaminocarbonyl or bis-alkyl-aminocarbonyl group.

25. (withdrawn-currently amended): The organoiodine compound as claimed in claim 24, wherein each R<sup>6</sup> group is a triiodophenyl group attached via a 1 to 10 atom bridge composed of bridging atoms selected from O, N and C.

26. (withdrawn): A method of producing a bone cement comprising admixing a liquid monomer portion and a particulate polymer portion, wherein admixture of said portions is effected under helium.

27. (withdrawn): A method for preparing a particulate polymer of a bone cement, wherein polymer particles are formed by emulsion polymerization.

28. (withdrawn): The method as claimed in claim 27, wherein said emulsion is oil-in-water.

29. (withdrawn): The method as claimed in claim 27, wherein the emulsion has an aqueous phase additionally comprising an emulsifier.

30. (withdrawn): A method of producing polymer particles by emulsion polymerization wherein salts are added to the aqueous phase.

31. (withdrawn): A method of producing polymer particles by emulsion polymerization, wherein the pH is adjusted by the addition of acids, bases or by the use of buffers.

32. (withdrawn): The method as claimed in claim 27, wherein polymerization is effected at a temperature in the range of from 50 to 100°C.

33. (withdrawn): The method as claimed in claim 32, wherein polymerization is effected at a temperature in the range of from 70 to 80°C.

34. (withdrawn): The method as claimed in claim 27, additionally comprising a polymerization initiator.

35. (withdrawn): The method as claimed in claim 34, wherein said polymerization initiator is selected from the group consisting of benzyl peroxide (BPO), 2,2'-azo-bis-isobutyronitrile (AIBN) and *t*-butyl peroxybenzoate.

36. (withdrawn): The method for preparing an organoiodine compound as claimed in claim 24, wherein said compound is prepared from triiodophenyl carboxylic acids and amines.

37. (withdrawn): The method as claimed in claim 36, additionally comprising a polymerization initiator.

38. (withdrawn): The method as claimed in claim 37, wherein said polymerization initiator is selected from the group consisting of N,N-dimethylp-toluidine, N,N-dimethylaminobenzyl alcohol (DMOH) and N,N-dimethylaminobenzyl oleate (DMAO).

39. (withdrawn): The method as claimed in claim 37, wherein said polymerization initiator is present in an amount up to 2% wt of the composition.

40. (withdrawn): A method of affixing a joint prosthesis comprising inserting said prosthesis and a bone cement into a bone cavity, wherein said cement is a cement as claimed in claim 1.

41. (withdrawn): Bone cement characterized in that the mechanical properties regarding the ultimate tensile strength and ultimate strain are greater than 10% higher than Palacos® bone.

42. (currently amended): The bone cement as claimed in claim 9, wherein the concentration of the organoiodine compound within the particulate polymer ~~particles~~-portion differs by less than 10% compared to the concentration of the organoiodine within the polymer prepared *in situ* from the monomer during use.